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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,118

03/23/2006

Hayase Yamashita

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EXAMINER

BROOKS, KRISTIE LATRICE

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1616

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02/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,118	Applicant(s) YAMASHITA ET AL.	
	Examiner KRISTIE L. BROOKS	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

1. Claims 1 and 6-8 are pending.
 2. Receipt and consideration of Applicants amendments/remarks November 7, 2008 is acknowledged.
 3. Rejections not reiterated from the previous Office Action are hereby withdrawn.
- The following rejections are either reiterated or newly applied. They constitute the complete set of rejections presently being applied to the instant application.

New Grounds of Rejection Necessitated by Applicant's Amendment

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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5. Claims 1 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 6,723,682) in view of Yoshimura et al. (US 6,458,748) and Iwasaki et al. (US 4,844,734).

Applicant claims a granular pesticide composition which comprises non-disintegrable pesticide granules containing: an acidic pesticidal active ingredient selected from sulfonylurea-based compounds and difluoromethanesulfonylanilide compounds, a cationic surfactant selected from dialkyldimethylammonium chlorides, and a basic substance and a second pesticidal active ingredient, wherein the granular pesticide composition having a granule size of 0.3 to 3 mm in diameter or of 0.6 to 3 mm in breadth and 2 to 10 mm in length, have the properties of settling in water rapidly and disintegration in water within 30 minutes.

Applicant also claims a process of preparing a granular pesticide composition which process comprises the steps of subjecting non-disintegrable pesticide granules, a pesticidal active ingredient, a nonionic or anionic surfactant and an extender to an extrusion granulation through a screen of which the mesh opening has a diameter larger than the granule size or granule length of the non-disintegrable granules, to form granules having a granule size of 0.3 to 3 mm in diameter or of 0.6 to 3 mm in breadth and 2 to 10 mm in length, wherein said non-disintegrable pesticide granules are not disintegrated in water within 30 minutes and contain an acidic pesticidal active ingredient selected from sulfonylurea-based compounds and difluoromethanesulfonylanilide compounds, a cationic surfactant and a basic substance.

Determination of the scope and content of the prior art

(MPEP 2141.01)

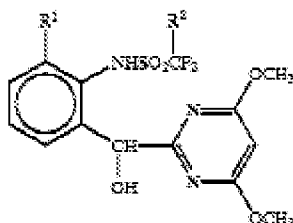
Yamada et al. teach water dispersible granules comprising the herbicide flumioxazin, a polycarboxylate surfactant, another surfactant (cationic or anionic), and a mineral carrier, such as, calcium carbonate (see the abstract, column 1 lines 5-10, and column 2 lines 21-23 and 33-50). The water dispersible granules are prepared by mixing flumioxazin, the polycarboxylate surfactant, additional surfactant, and mineral carrier, adding water, granulating with extruder having 0.5-1.5mm screen, and drying (see column 2 lines 64-67 and column 3 lines 1-4). The particle diameter of the water dispersible granules is usually 200-2000 μ m (~ 2 to 2mm) (see column 3 lines 5-6). The water dispersible granules can be formulated with additional ingredients, such as a synergist, builder, solvent, stabilizer, etc. (see column 2 lines 51-54). The water dispersible granules have good disintegrability in water and can be diluted to a varied amount dependent on the weeds, crops, timing of application, etc. (see column 1 lines 48-50 and column 2 lines 55-61).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Yamada et al. do not teach the instant acidic pesticidal active agent and cationic surfactant. These deficiencies are cured by the teachings of Yoshimura et al. and Iwasaki et al.

Yoshimura et al. teach herbicidal di- or tri-fluoromethanesulfonyl anilide derivatives of formula I (see the abstract).



The compounds can be formulated with other herbicidal active ingredients, solid carriers such as kaolin, bentonite, clay, calcium carbonate, surfactants, and can be formulated into granules (see column 8 lines 47-67 and column 9 lines 1-5 and 38-40).

Iwasaki et al. teach a granular pesticide composition comprising a pesticide and a synergist surfactant (see the abstract). Examples of surfactants include quaternary ammonium salt cationic surfactants, i.e. dialkyl-dimethylammonium chloride, where the alkyl group may be straight or branched and having 8 to 22 carbon atoms (see column 1 lines 64-66, column 2 lines 3-6, and Example 5). The pesticide may be a herbicide, insecticide, acaricide, plant growth regulator (see column 3 lines 19-67). The granules may include a mineral powder, such as calcium carbonate (see column 4 lines 13-20). The obtained granular pesticide is excellent in wettability and disintegratability (see the abstract).

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

One of ordinary skill in the art would have been motivated to incorporate the instant acidic pesticidal active ingredient and the instant cationic surfactant (i.e. dialkyldimethylammonium chlorides) into the formulations taught by Yamada et al. because di- or tri-fluoromethanesulfonyl anilide derivatives are known herbicides and are known to be formulated into granules, as suggested by Yoshimura et al. Furthermore, cationic surfactants, such as, dialkyldimethylammonium chlorides, are known for use in granulated formulations with excellent disintegratability, as suggested by Iwasaki et al.

Thus, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to incorporate the instant acidic pesticidal active ingredient into the formulations taught by Yamada et al. because it is *prima facie* obvious to combine formulations, taught to be useful for the same purpose. (*In re Kerkhoven*, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980)). And in the instant case, flumioxazin and the acidic pesticidal active ingredient (i.e. di-fluoromethanesulfonyl anilide derivative) are known herbicides that can be formulated into granular compositions.

Although Yamada et al. do not teach the instant cationic surfactant (i.e. dialkyldimethylammonium chlorides), it would have been obvious to one of ordinary skill in the art to use a dialkyldimethylammonium chloride, because it is an obvious variation of cationic surfactants capable of use in water dispersible granules with good disintegratability.

With regard to the recitation in claim 1, i.e. “the granular pesticide composition...and having properties of settling in water rapidly after application on water surface and of disintegration in water within 30 minutes”, it is the Examiner’s position that since the components and granular size of the components taught in the prior art fall within the scope of what is claimed and disclosed in Applicant’s specification, the composition taught by the prior art references would possess the instant properties, absence evidence to the contrary.

Therefore, the claimed invention would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

Response to Arguments

Applicant's arguments with respect to claims 1 and 6-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. No claims are allowed.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie L. Brooks whose telephone number is (571) 272-9072. The examiner can normally be reached on M-F 8:30am-6:00pm Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Johann R. Richter can be reached on (571) 272-0646. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KB

/Mina Haghighatian/
Primary Examiner, Art Unit 1616